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APPLICATION THAT MET THE REQUIREMENTS TO BE GRANTED A
FILING DATE.

APPLICATION NUMBER: 60/458,491

FILING DATE: March 28, 2003

RELATED PCT APPLICATION NUMBER: PCT/US04/09620

By Authority of the
COMMISSIONER OF PATENTS AND TRADEMARKS



P. SWAIN
Certifying Officer



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03/28/03



3-31 601958491 032803 Apr

Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

PROVISIONAL APPLICATION COVER SHEET

This is a request for filing a PROVISIONAL APPLICATION under 37 CFR 1.53(c).

DOCKET NUMBER: B01075.70038
Express Mail Label No. EV 208 517 785 US
Date of Deposit: March 28, 2003IC979 U.S. PTO
60/458491

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INVENTOR(S)/APPLICANT(S)

LAST NAME	FIRST NAME	MIDDLE INITIAL	RESIDENCE (CITY AND EITHER STATE OR FOREIGN COUNTRY)
Stevens-Wright	Debbie		North Andover, MA
Amara	Ryan		Stoneham, MA
Brown	Erik		Allston, MA
MacAdam	David		Mullbury, MA

 Additional inventors are being named on the separately numbered sheets attached hereto.

TITLE OF THE INVENTION (280 characters max)

SHAPE SHIFTING ELECTRODE GEOMETRY FOR ELECTROPHYSIOLOGY CATHETERS

CORRESPONDENCE ADDRESS



CUSTOMER NUMBER: 23628

ENCLOSED APPLICATION PARTS (check all that apply)

 Specification - Number of Pages = 2 Drawing(s) - Number of Sheets Application Data Sheet, See 37 CFR 1.76 Return receipt postcard

The invention was made by an agency of the United States Government or under a contract with an agency of the United States Government.

 No Yes, the name of the U.S., Government Agency and the Government Contract Number are: Other: _____

METHOD OF PAYMENT (check all that apply)

 A check is enclosed to cover the Provisional Filing Fees. The Commissioner is hereby authorized to charge any additional fees or credit overpayment to Deposit Account 23/2825. A duplicate of this sheet is enclosed. Small Entity Status is claimed.

PROVISIONAL FILING FEE AMOUNT \$ 160.00

Respectfully submitted,

March 28, 2003

Date

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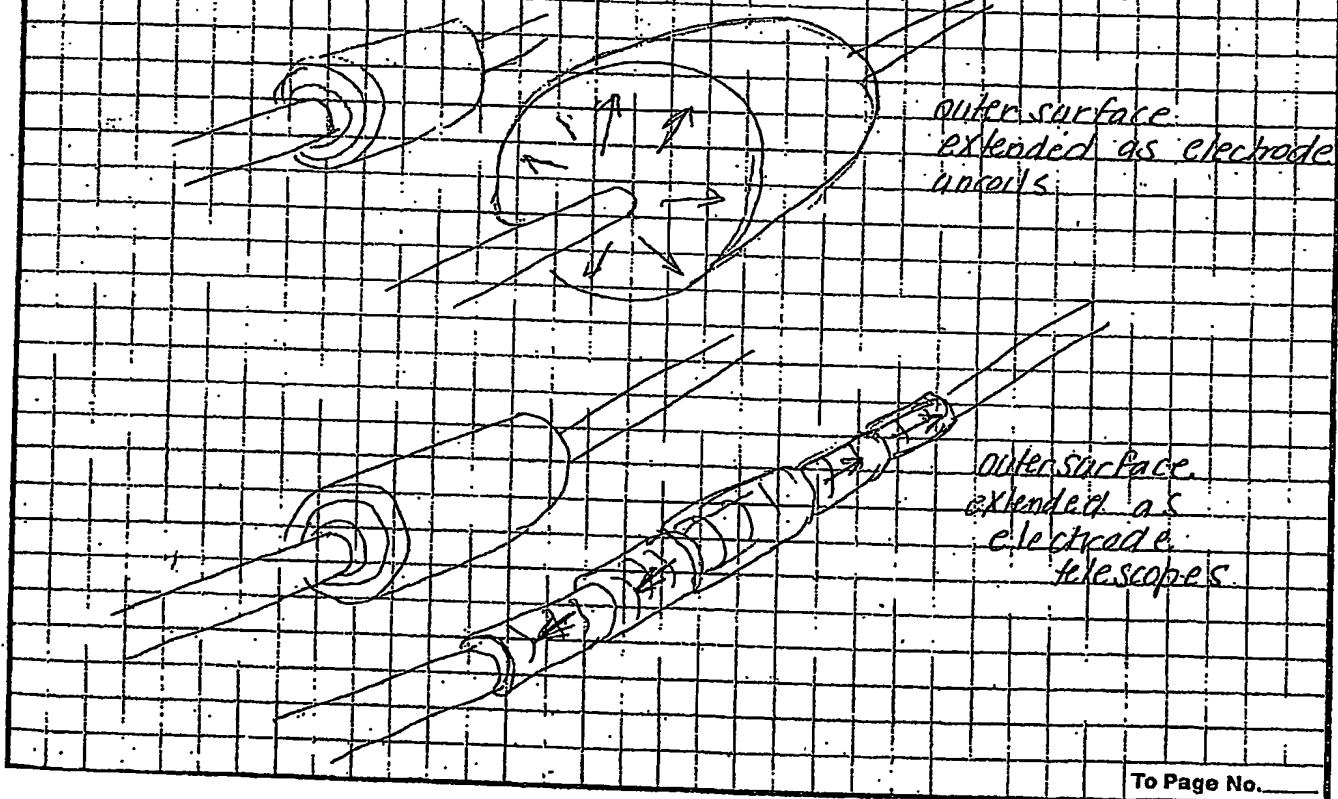
BEST AVAILABLE COPY

TITLE Shape Shifting Electrode Geometry

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Morgan Analysis study showed that extending the surface of the electrode produces a larger lesion. The larger geometry pushes the point that the potential begins to drop off further into the domain. The reach of the potential field is larger for electrodes having an outer surface that extends out further into the domain, extending toward the boundaries of the domain.

For clinical reasons, it is undesirable to have an electrode that is excessively large. One concept would be to have an electrode that started off with a compact geometry when moving through the vasculature. At the site of energy application the outer surface of the electrode could be extended to improve the lesion depth as necessary.



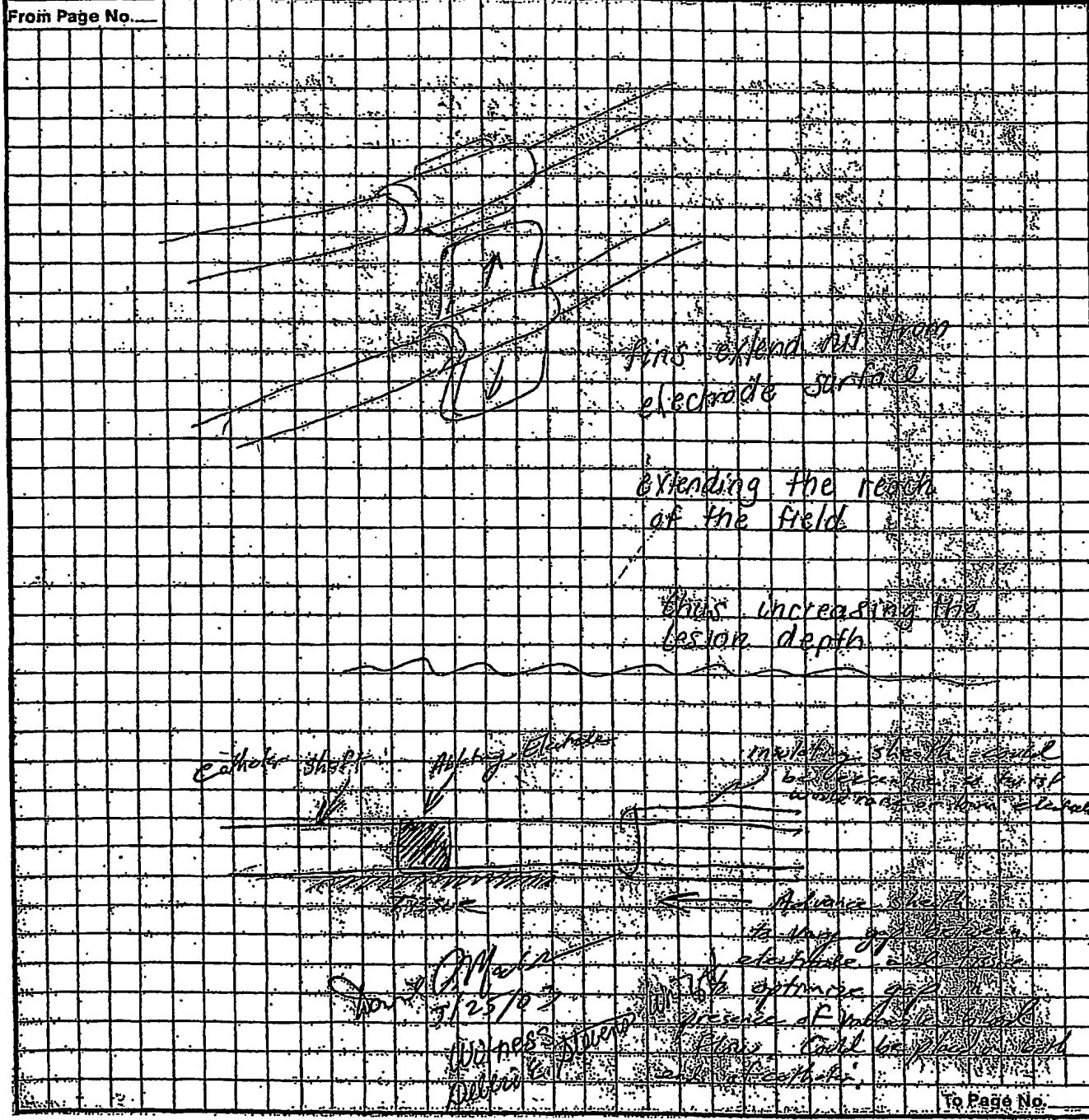
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TITLE

shape shifting geometry

From Page No.



fins extend from
electrode surface

extending the reach
of the field

this increasing the
lesion depth

cathode shaft holding electrode maintaining shaft parallel
to body surface and to lesion boundary

allowing for
the shape of
electrode

optimization
presence of fins to increase
field in periphery

date: 7/23/07

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